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I, GAYE TURNER, TEAM LEADER EXAMINATION SUPPORT AND SALES hereby certify that annexed is a true copy of the Provisional specification in connection with Application No. PR 3214 for a patent by AINSWORTH GAME TECHNOLOGY PTY LTD filed on 15 January 2001.

I further certify that pursuant to the provisions of Section 37 of the Patents Act 1990 Application No. 14986/01 was treated as a provisional application and reallocated No PR 3214.

I further certify that the name of the applicant has been amended to AINSWORTH GAME TECHNOLOGY LIMITED pursuant to the provisions of Section 104 of the Patents Act 1990.

WITNESS my hand this
Twentieth day of December 2001

GAYE TURNER
TEAM LEADER EXAMINATION
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AUSTRALIA

PATENTS ACT 1990

COMPLETE SPECIFICATION

FOR A PETTY PATENT

ORIGINAL

AUSTRALIAN
PATENT OFFICE
SEC 104

Name of Applicant:	AINSWORTH GAME TECHNOLOGY ~~PTY LTD~~ Limited
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Invention Title:	GAMING MACHINE

The following statement is a full description of this invention, including the best method of performing it known to me/us:-

GAMING MACHINE

Field of the Invention

The present invention relates to gaming machines. The invention has been developed primarily for computerised gaming machines and will be described herein

5   with reference to that application. However, the invention is not limited to that particular field of use and may be suitable for many other applications.

Background of the Invention

Gaming machines have long been known and are now one of the most common forms of gambling. Usually gaming machines will simulate a well know game of

10   chance. One of the oldest and best known forms of gaming machine is the rotating reel type "poker machine". In light of its popularity, the present invention will be described with reference to this type of gaming machine. However, it will be appreciated that this is purely illustrative and in no way limiting on the scope of the invention.

Poker machines use a series of three or more reels, each reels having symbols on

15   its peripheral edge. The reels are rotated upon the placement of a wager and then stopped to produce an arrangement of randomly selected symbols. Winnings are paid if the random arrangement of symbols matches one of the predetermined winning combinations.

More recently, these gaming machines have been computerised with a video screen

20   replacing the physically rotating reels. Typically, the display screen presents an array of symbols in five columns and three rows equating to the symbols that would normally be seen on the five physically rotating reels of an old style mechanical machine. Computerised machines have allowed players to bet on symbols appearing in one or more rows or columns instead of just the middle row which was traditionally the only

row available for betting on in the old style mechanical machines. The line of an adjacent symbols available for betting on have become known as "pay lines". Eventually, all the practical pay lines available in five column, three row or array were exhausted.

5   In an on-going effort to further enhance the gaming experience, "wild cards" have been introduced into the arrays of symbols. Wild cards are well known in many card games as being able to substitute for any of the other symbols and thereby increase the players chances of forming a winning combination. The appearance of a wild card in an array of symbols shown on a computerised gaming machine is even more advantageous

10   because more than one pay line will usually pass through the wild card. Despite this, players are now very familiar with the wild card feature and its appearance in the array of symbols no longer provides a strong sense of bonus for many seasoned players.

Summary of the Invention

It is an object of the present invention to overcome or ameliorate at least one of

15   the disadvantages of the prior art, or to provide a useful alternative.

Accordingly, in a first aspect the present invention provides a gaming machine adapted to display an array of symbols randomly selected from a set symbols and paying winnings on the occurrence of predetermined winning combinations of symbols within the array; wherein

20   at least one of the symbols from the set being a primary symbol having one or more associated secondary symbols, such that;

one of the secondary symbols substitutes for the primary symbol in response to a trigger, and winnings are paid on any winning combinations in the array with the

primary symbol as well as any additional winning combinations in the array with the secondary symbol.

Preferably, the primary and secondary symbols are shown on a simulated three dimensional object within the array so that the three dimensional object moves in order to substitute the secondary symbol into the array.

In a further preferred form, the three dimensional object is a cube with the primary symbol on the front face and the secondary symbol on one of the remaining faces such that the cube rotates in order to substitute the secondary symbol into the array. In this form, it is further preferred if the secondary symbol is visible prior to the occurrence of the trigger but displayed in a manner that clearly indicates that it is not yet part of the array.

In one particularly preferred form, the array has a plurality of cubes vertically stacked into two or more columns such that each of the symbols in the array are primary symbols on the front faces of each of the cubes and the respective secondary symbols are shown on the respective side faces adjacent each of the front faces. In this embodiment, the trigger may cause only one of the cubes to rotate or alternatively, several cubes to rotate and even a whole column may rotate.

Conveniently, the trigger is a predetermined combination of symbols in the array. Furthermore, the trigger may also be a predetermined combination of the secondary symbols shown on the adjacent side faces of the cubes.

According to another aspect the present invention provides a gaming machine adapted to display an array of symbols randomly selected from a set of symbols and paying winnings on the occurrence of predetermined winning combinations of symbols within the array; wherein

at least one of the symbols in the array is shown on an image of a three dimensional object such that;

in response to a trigger, the three dimensional object moves in order to substitute a different symbol into the array.

Preferably, winnings are paid on any winning combinations in the array having the initial symbol shown on the three dimensional object as well as any additional winning combinations in the array having the different symbol.

In a further preferred form, the three dimensional object is a cube with symbols on at least two faces, one of the faces being the front face and the different symbol being on any of the other faces, such that;

the cube rotates in response to the trigger to bring the different symbol into the array.

Preferably, the array has a plurality of cubes stacked into two or more columns and all the cubes in one of the columns rotate in response to the trigger.

Conveniently, the trigger is a predetermined combination of two or more adjacent symbols;

the combination of symbols being graphically represented in the array as a single symbol of greater size than the individual symbols.

The present invention provides the mathematical basis for a much greater range of outcomes for the game. In addition to having wildcards appear in the array, the game allows certain symbols to be swapped for alternative symbols which may or may not be a wildcard. Accordingly, the game designer has more flexibility with regard to the level of winnings, the frequency of winning and all other aspects influencing the gaming experience. Furthermore, the use of a three dimensional style of display and oversized

symbols, is more interesting and dynamic and therefore holds greater visual appeal for players.

Brief Description Of The Drawings

A preferred embodiment of the present invention will now be described, by way of example only, with reference to the accompanying drawings in which:

Figure 1 shows a schematic representation of the display of a gaming machine according to the present invention;

Figure 2 shows the display of Figure 1 during a trigger event; and

Figure 3 shows the display of Figure 1 after the trigger event.

Detailed Description of the Preferred Embodiments

Referring to Figure 1, the gaming machine display shows an array of symbols A1, A2, ..., C2, C3 on the front of cubes stacked into three columns A, B and C, such that each column has three cubes with respective symbols. However, it will be appreciated that the number of cubes in the array can be varied to suit the game designer's requirements.

The three columns A, B and C are shown as vertically stacked cubes. The front face of each cube shows one of the symbols in the array. The adjacent side faces (A4, A5, A6, ..., C6) of each cube are also shown however they are displayed in a manner that makes it clear to the player that the symbols on the adjacent side faces do not form part of the array.

Paylines X-X, Y-Y and Z-Z run through the array for defining the lines of symbols available for carrying a bet. Of course, the paylines may also be diagonals or "dog legged" as is common amongst conventional gaming machines.

Assuming that all three paylines are carrying a bet, then the winnings are calculated for any winning combinations that appear on a payline. Only the symbols shown on the front face of the cubes (A1, B1, C1, A2, B2, ..., C3) are considered when calculating any winnings. Symbols on the adjacent side faces of the cubes (A4,

5 B4, C4, A5, B5, ..., C6) are visible to the player but not used for the purpose of assessing any winnings.

Referring to Figure 2, the machine recognises that the combination of symbols C6, C4 and C5 is a trigger combination. To enhance the visual impact associated with the occurrence of the trigger, the combination of symbols C6, C4 and C5 is graphically

10 displayed as if it were one oversized symbol instead of three individual symbols. In this case, the individual symbols combine to produce a single oversize symbol containing the word "WIN".

Upon the occurrence of the trigger, the machine awards the player any winnings from the array containing symbols A1, A2 and A3 and then rotates the cubes in column

15 A in the direction shown by the arrow such that the symbols A4, A5 and A6 on the adjacent side faces are moved into the array (see Figure 3). Winnings are then awarded for any additional winning combinations that appear in the array having A4, A5 and A6.

It will be appreciated that this invention increases the number of possible outcomes which provides the mathematical basis for the game designer to exercise greater control

20 over the nature and character of the game. Furthermore, the invention can be used in conjunction with standard wild card techniques or any desired variations to this theme. For example, the occurrence of any oversize symbols in the array can also function as wild cards which substitute for any other symbol. An oversized wild card in an array is

likely to pass through most of the available paylines and its size has more visual impact, thus giving the player a strong sense of bonus when it appears.

The present invention has been described herein by way of example only. The embodiments shown are purely illustrative and should not be considered in any way

5   restrictive on the spirit and scope of the broad inventive concept.

THE CLAIMS DEFINING THE INVENTION ARE AS FOLLOWS :

1.   A gaming machine adapted to display an array of symbols randomly selected from a set symbols and paying winnings on the occurrence of predetermined winning combinations of symbols within the array; wherein

5   at least one of the symbols from the set being a primary symbol having one or more associated secondary symbols, such that;

        one of the secondary symbols substitutes for the primary symbol in response to a trigger, and winnings are paid on any winning combinations in the array with the primary symbol as well as any additional winning combinations in the array with the

10   secondary symbol.

2.   A gaming machine according to claim 1, wherein the primary and secondary symbols are shown on a simulated three dimensional object within the array so that the three dimensional object moves in order to substitute the secondary symbol into the array.

15   3.   A gaming machine according to claim 2, wherein the three dimensional object is a cube with the primary symbol on the front face and the secondary symbol on one of the remaining faces such that the cube rotates in order to substitute the secondary symbol into the array.

4.   A gaming machine according to claim 3, wherein the secondary symbol is visible

20   prior to the occurrence of the trigger but displayed in a manner that clearly indicates that it is not yet part of the array.

5.   A gaming machine according to claim 4, wherein the array has a plurality of cubes vertically stacked into two or more columns such that each of the symbols in the array

are primary symbols on the front faces of each of the cubes and the respective secondary symbols are shown on the respective side faces adjacent each of the front faces.

6. A gaming machine according to claim 5, wherein the trigger causes only one of the cubes to rotate.

7. A gaming machine according to claim 5, wherein the trigger causes several cubes to rotate.

8. A gaming machine according to claim 3, wherein the trigger is a predetermined combination of symbols in the array.

9. A gaming machine according to claim 3, wherein the trigger is a predetermined combination of the secondary symbols shown on the adjacent side faces of the cubes.

10. A gaming machine adapted to display an array of symbols randomly selected from a set of symbols and paying winnings on the occurrence of predetermined winning combinations of symbols within the array; wherein

at least one of the symbols in the array is shown on an image of a three dimensional object such that;

in response to a trigger, the three dimensional object moves in order to substitute a different symbol into the array.

11. A gaming machine according to claim 10, wherein winnings are paid on any winning combinations in the array having the initial symbol shown on the three dimensional object as well as any additional winning combinations in the array having the different symbol.

12. A gaming machine according to claim 11, wherein the three dimensional object is a cube with symbols on at least two faces, one of the faces being the front face and the different symbol being on any of the other faces, such that;

the cube rotates in response to the trigger to bring the different symbol into the array.

13. A gaming machine according to claim 12, wherein the array has a plurality of cubes stacked into two or more columns and all the cubes in one of the columns rotate in
5 response to the trigger.

14. A gaming machine according to claim 13, wherein the trigger is a predetermined combination of two or more adjacent symbols;

the combination of symbols being graphically represented in the array as a single symbol of greater size than the individual symbols.

10 DATED this 15th Day of January, 2001

AINSWORTH GAME TECHNOLOGY ~~PTY LTD~~ Limited

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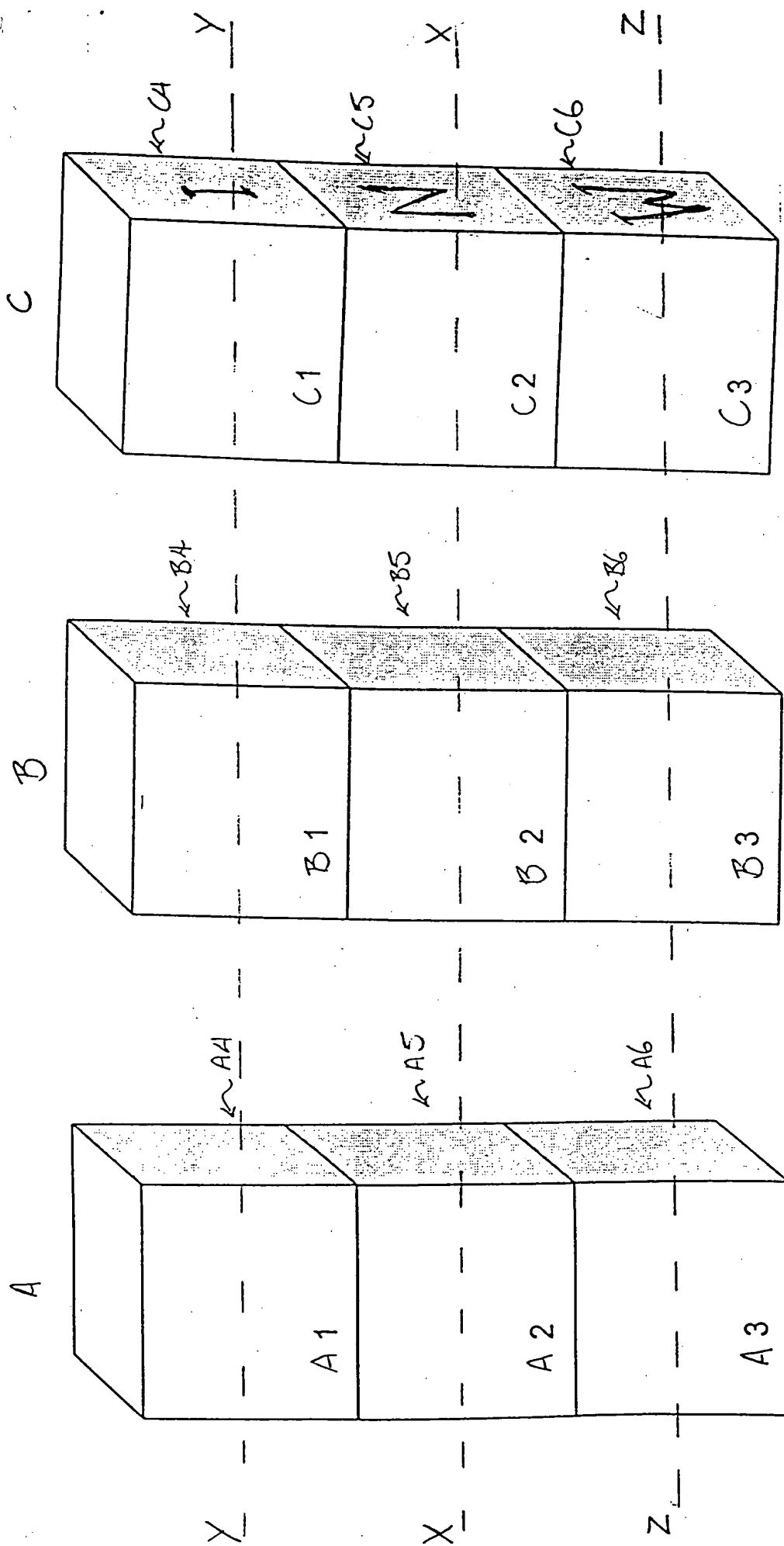Registered Patent and Trade Mark Attorney of Australia
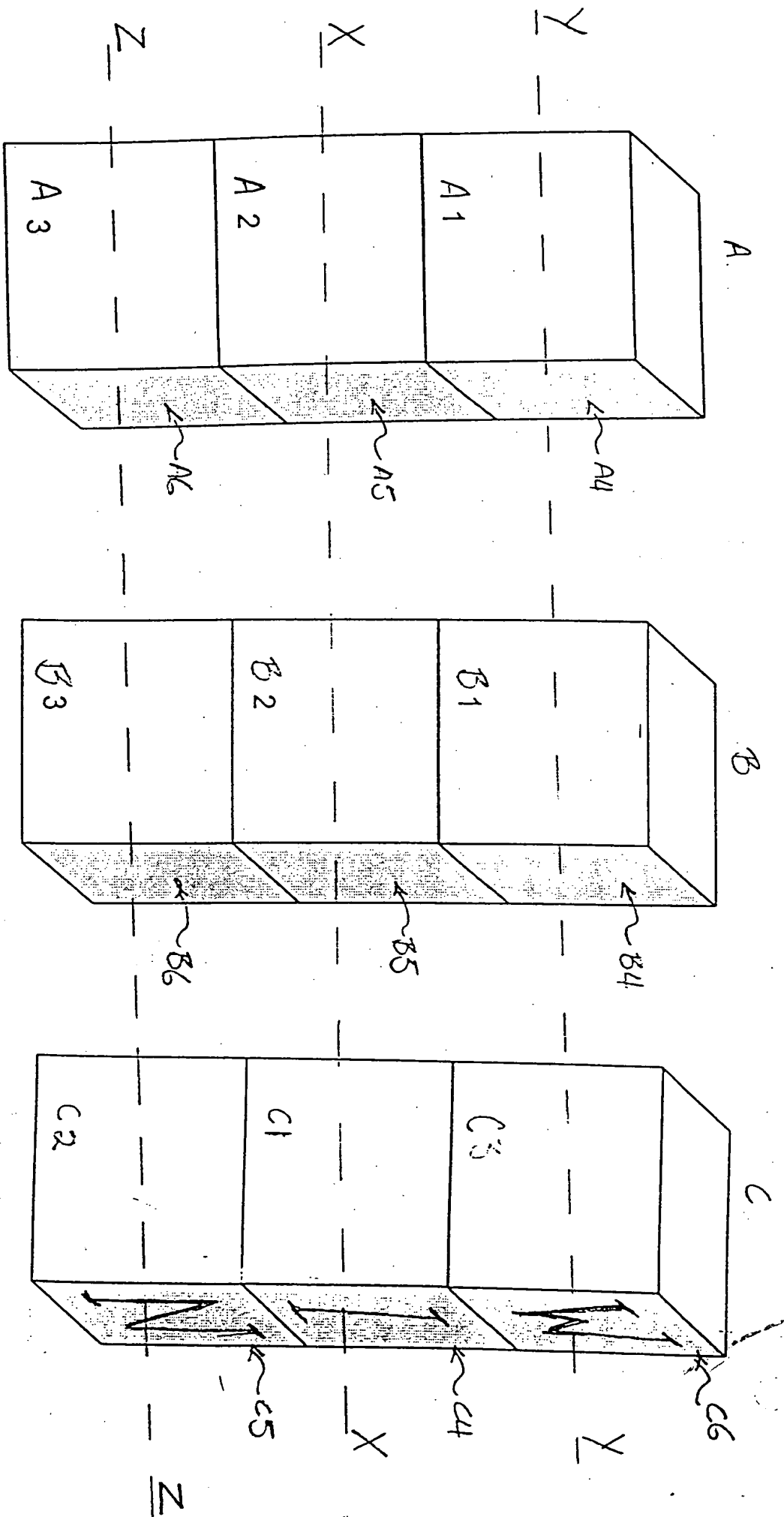of BALDWIN SHELSTON WATERS
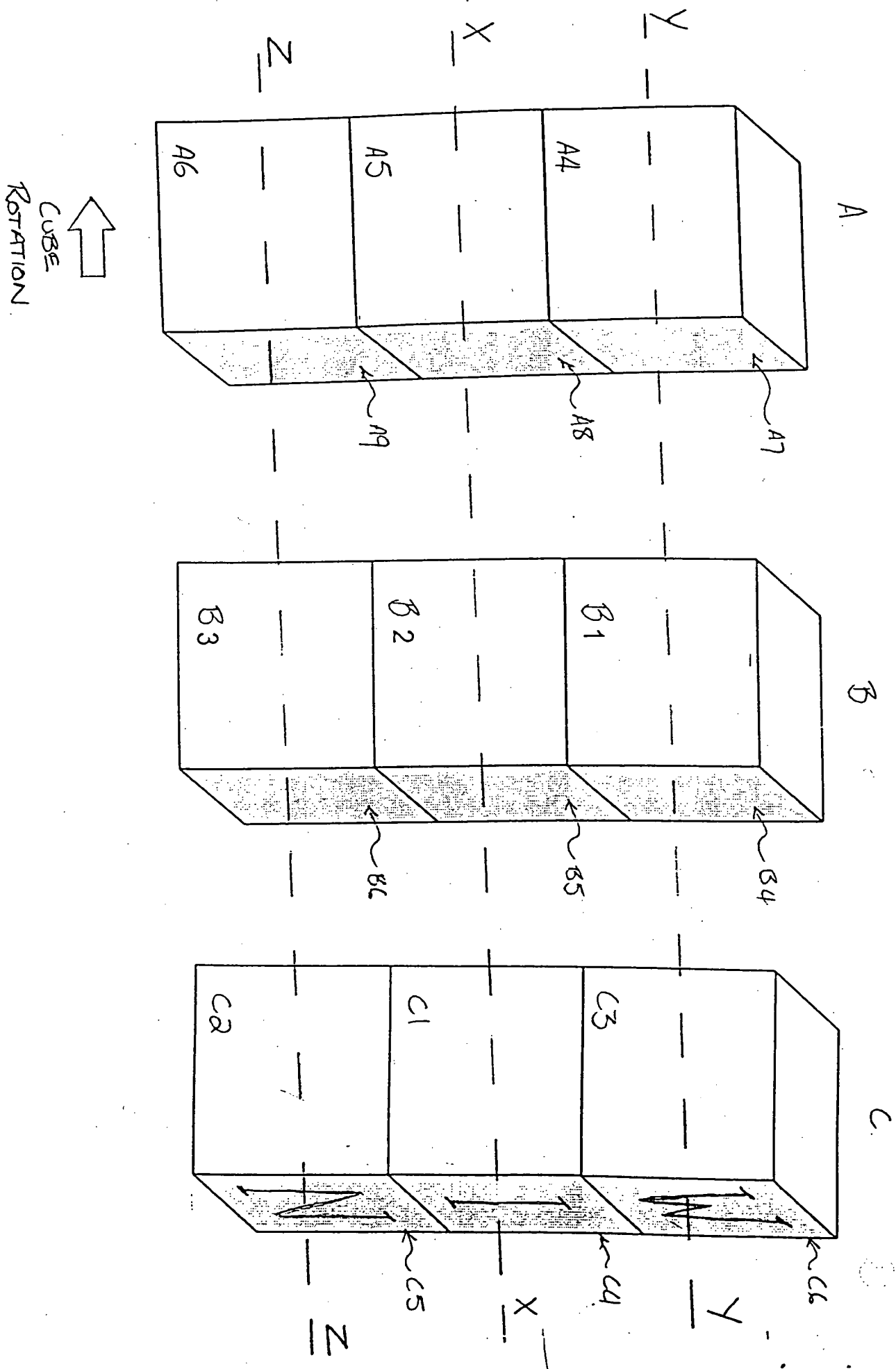
Figure 1.

Figure 2.

Figure 3.